



2008 Idaho Transportation Department Efficiency Report

Improving Customer Service

Leading Through Agency Performance

Expanding and Enhancing Partnerships



December 2, 2008

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Pamela Lowe, P.E.
Director

A Commitment to Efficiency

The *2008 Idaho Transportation Department Efficiency Report* details innovative ideas, and unique processes and programs that are making government work better. Our efficiency program is empowering employees to improve customer service, cut red tape, solve problems, and save money.

Our long-term commitment to efficiency is even more important in 2008. As state and federal budgets tighten and construction costs escalate, we need to do more with less. And we are doing just that.

We began incorporating Practical Design concepts into our construction projects in 2007. By using Practical Design, the department saves money by customizing its highway construction projects to fit specific needs rather than applying generic standards across the board.

Practical Design allows Idaho to make wise investments, building many “good” projects rather than just a few “perfect” projects. As financial times get even leaner, this concept ensures we can stretch every dollar to meet as many of our transportation needs as we can.

We projected \$5.6 million in savings for our practical design projects for 2008. I’m pleased to report our actual savings exceed \$18 million!

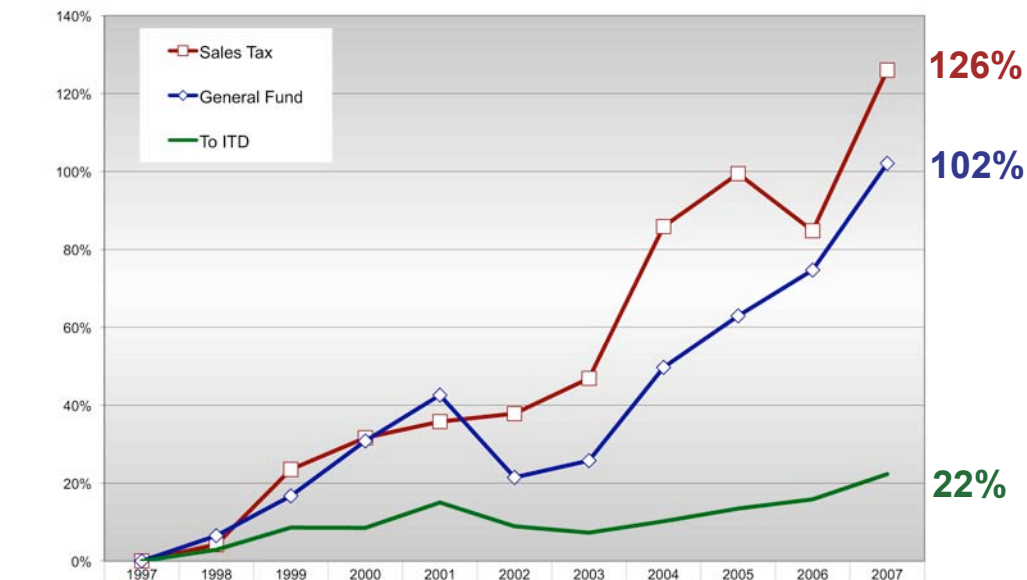
Our efforts to save time and money are not limited to construction projects. Each of our six divisions is improving efficiency using the principles of Practical Design. This report provides details on each division’s 2008 efficiency efforts and looks ahead to future efficiencies to save time and money.

The *2008 Idaho Transportation Department Efficiency Report* reflects creative examples of the department at its best. It exemplifies our commitment to serve Idahoans with a transportation department they can trust and be proud of today—and in the future.

A handwritten signature in blue ink that reads "Pamela K. Lowe". The signature is fluid and cursive, with the first name being the most prominent.

Key Indicators

Sales tax and the general fund compared to ITD's state revenue



Since 1997, Idaho's sales tax receipts increased 126% and Idaho's general fund increased 102%.

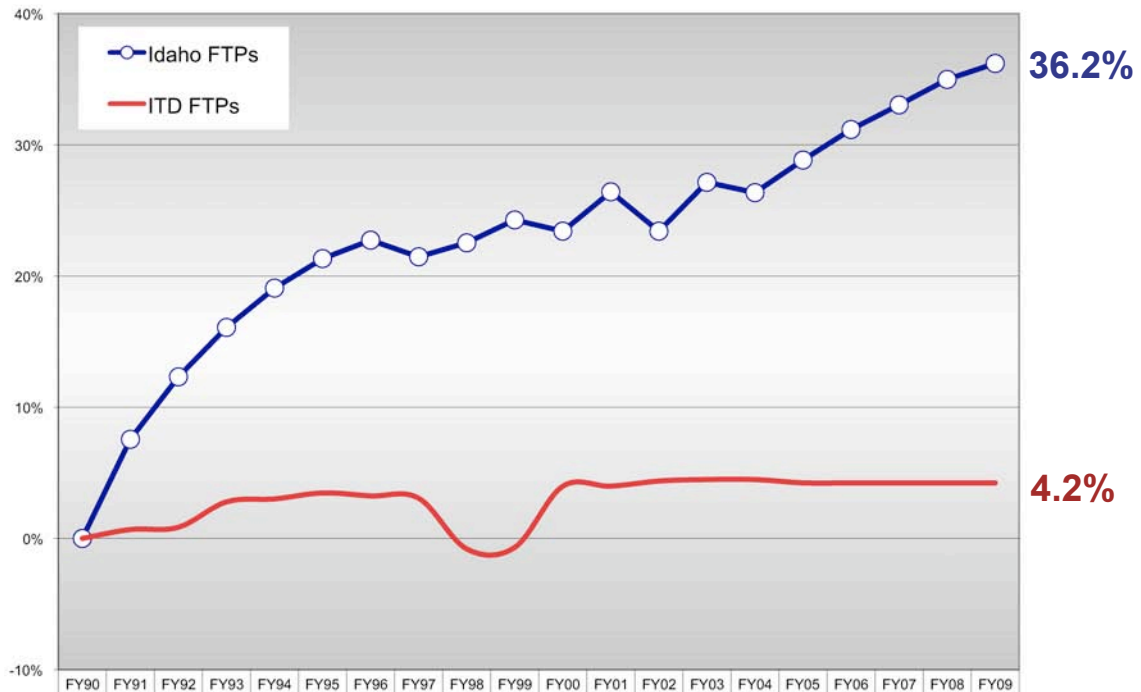
HDA* revenue to ITD increased only 22% during that same time.

*Highway Distribution Account

Source: Legislative Services Office, *Idaho Fiscal Facts*

Key Indicators

State of Idaho Full-Time Positions (FTP) compared to ITD

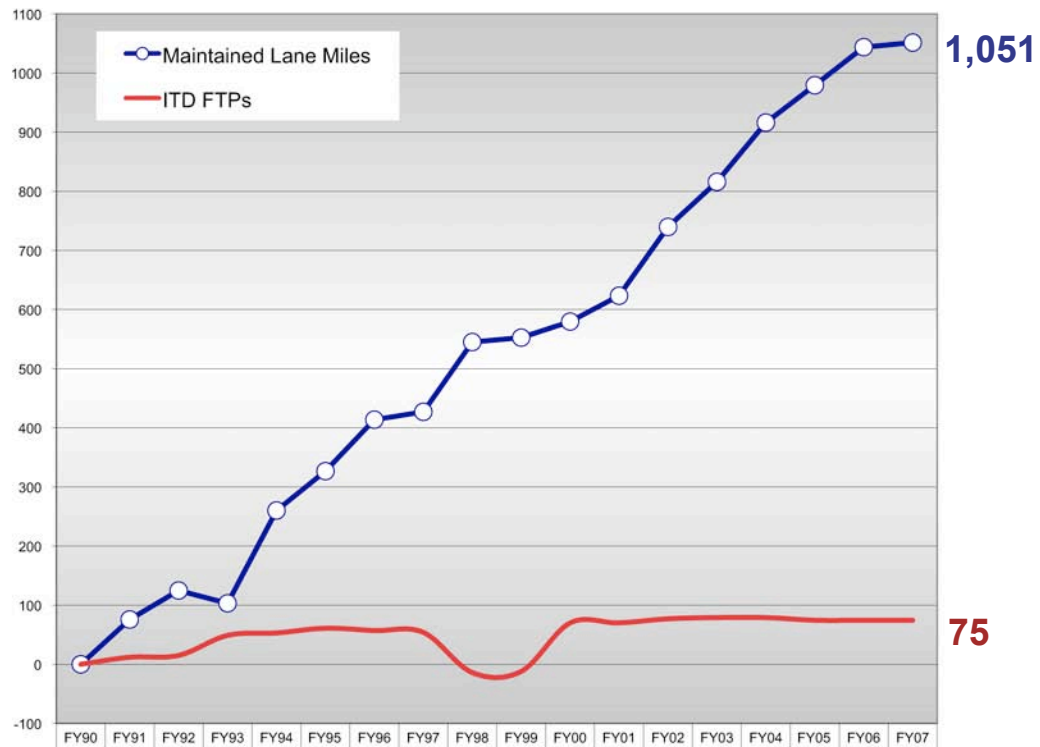


State FTPs increased 36.2% since FY90.

ITD's FTPs increased only 4.2% during the same time.

Key Indicators

Growth in lane miles compared to ITD's total FTPs

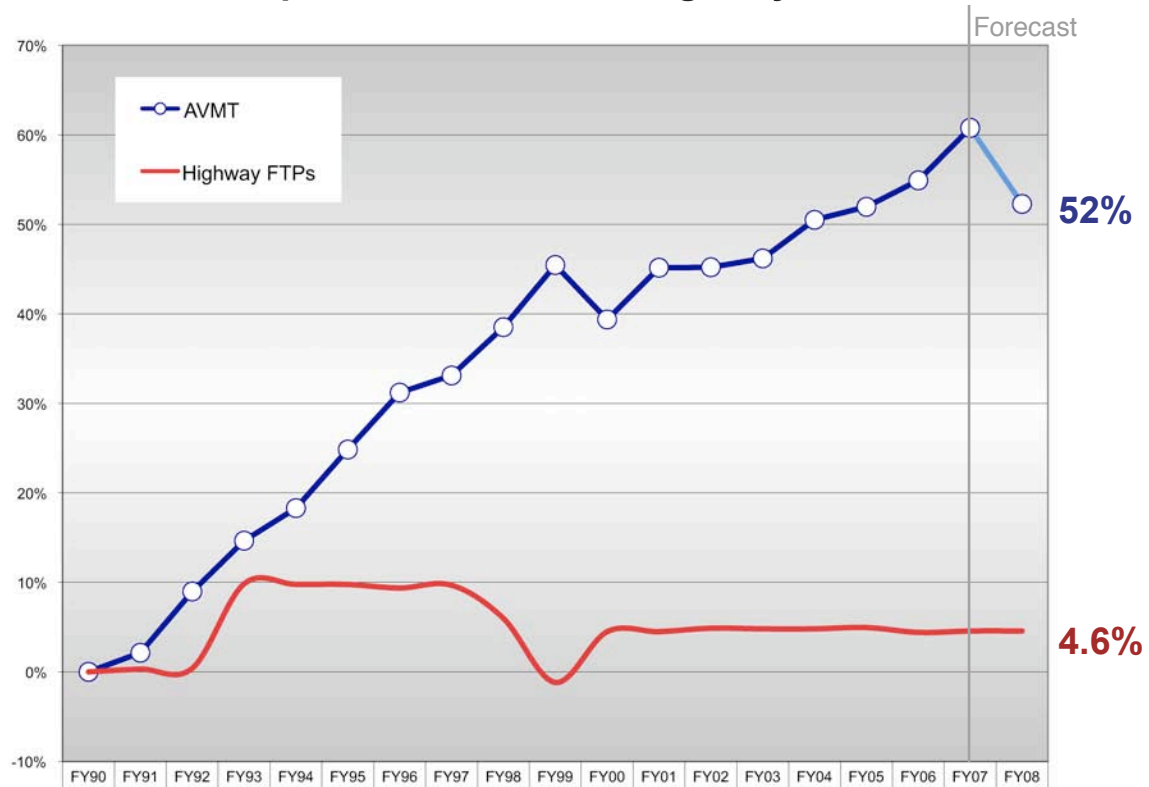


ITD added 1,051 lane miles to the State Highway System since 1990.

ITD added only 75 FTPs during the same time.

Key Indicators

Annual Vehicle Miles Traveled (AVMT) compared to Division of Highways FTPs

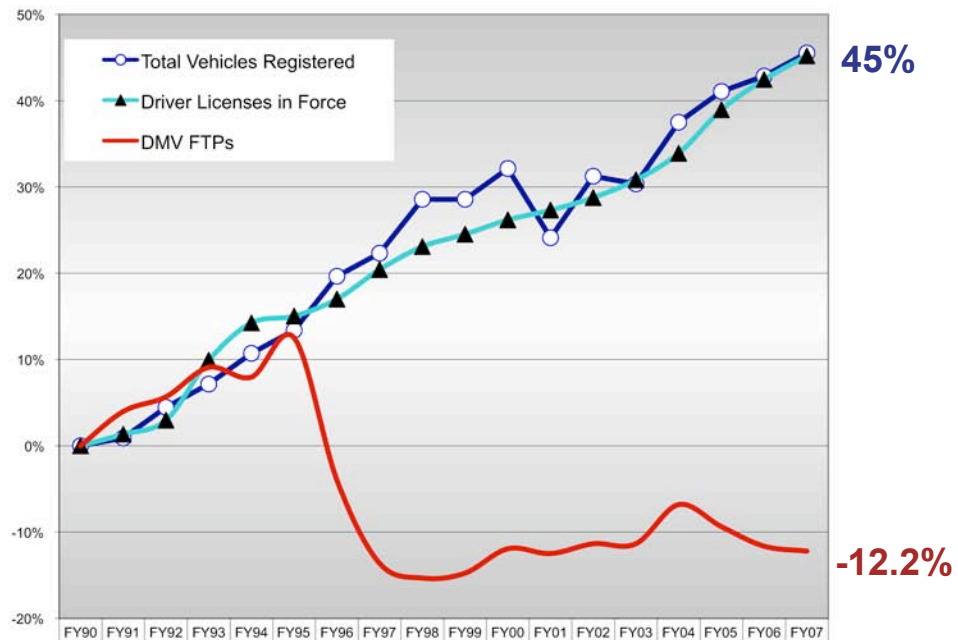


Idaho's total AVMT increased 52% between FY90 and FY07.

Division of Highways FTPs only increased 4.6% during the same time.

Key Indicators

Driver licenses and registrations compared to DMV FTPs



Driver licenses and registrations increased over 45% since FY90.

DMV FTPs (not including POE) decreased 12.2% during the same time.

Division of Highways

FY08 Practical Design Projects

— Introduction —

In 2007 the department implemented the Practical Design program to simplify the design of road and bridge projects and stretch taxpayer dollars as far as possible. The program supports the department's long history and culture of innovative, cost-effective solutions. It also increases the innovation, creativity, and flexibility that can be used in the design process.

Customizing road and bridge designs to fit specific needs rather than using a “one-design fits all” approach reduces the costs of construction projects.

Employing Practical Design concepts wherever possible not only saves money, it provides the flexibility to incorporate new technology and practices—allowing the Idaho Transportation Department to continue as one of the most efficient transportation agencies in the nation. The savings created by the Practical Design program will be used to fund additional projects.

Total Practical Design savings in FY08

	Projected Savings	Savings to Date	Projected Savings from Projects Advanced	Savings to Date from Projects Advanced
District 1	\$204,500	\$349,000	-	-
District 2	\$0	\$0	\$110,000	\$218,500 ¹
District 3	\$969,000	\$2,861,000	-	-
District 4	\$940,000	\$3,489,000	-	-
District 5	\$0	\$0	\$5,045,000	\$3,876,000 ²
District 6	<u>\$3,520,000</u>	<u>\$5,993,000</u>	<u>\$860,000</u>	<u>\$1,428,000</u> ³
TOTAL :	\$5,633,500	\$12,692,000	\$6,015,000	\$5,522,500

¹One project advanced from FY09

²One project advanced from FY09, two projects advanced from FY10

³One project advanced from FY09, three projects advanced from FY12

Division of Highways

FY08 Practical Design Projects

— District 1 —

I-90 Pavement striping

- Status**
- The bidding process is underway
 - The original “Pre-Practical Design” estimate was \$534,000
 - The estimated cost using Practical Design is \$400,000

- Savings**
- \$134,000 (a 25 percent savings)
-

Districtwide brooming

- Status**
- Contract has been awarded
 - The original “Pre-Practical Design” estimate was \$500,000
 - The contract is for \$285,000

- Savings**
- \$215,000 (a 43 percent savings)

Total FY08 savings in District 1:

\$349,000

Division of Highways FY08 Practical Design Projects

— District 2 —

U.S. 12, Woodland Road to milepost 70

Status	<ul style="list-style-type: none">• Contract has been awarded• Advanced from FY09• The “Pre-Practical Design” estimate was \$2,050,000• The low bid using Practical Design is \$1,831,500
Savings	<ul style="list-style-type: none">• \$218,500 (an 11 percent savings)

Total FY08 savings in District 2: \$218,500

Division of Highways FY08 Practical Design Projects

— District 3 —

U.S. 20/26 corridor preservation, Caldwell to Eagle

- Status**
- Project study is underway
 - The original “Pre-Practical Design” estimate was \$1,400,000
 - The cost using Practical Design is \$1,270,000

- Savings**
- \$130,000 (a 9 percent savings)
-

SH-55, Main Street, Donnelly

- Status**
- Bidding process is underway
 - The original “Pre-Practical Design” estimate was \$1,820,000
 - The estimated cost using Practical Design is \$1,755,000

- Est. Savings**
- \$65,000 (a 3 percent savings)
-

SH-51/SH-67 Junction, Mountain Home

- Status**
- Bidding process is underway
 - The original “Pre-Practical Design” estimate was \$690,000
 - The estimated cost using Practical Design is \$545,000

- Est. Savings**
- \$145,000 (a 21 percent savings)
-

SH-69, Kuna to Meridian corridor plan

- Status**
- Project study is underway
 - The original “Pre-Practical Design” estimate was \$225,000
 - The cost using Practical Design is \$205,000

- Savings**
- \$20,000 (a 9 percent savings)

Division of Highways FY08 Practical Design Projects

— District 3 —

SH-52, Payette to Horseshoe Bend corridor plan

- Status**
- Project study is underway
 - The original “Pre-Practical Design” estimate was \$250,000
 - The cost using Practical Design is \$230,000

- Savings**
- \$20,000 (an 8 percent savings)
-

U.S. 26, Parma to Caldwell corridor plan

- Status**
- Project study is underway
 - The original “Pre-Practical Design” estimate was \$200,000
 - The cost using Practical Design is \$180,000

- Savings**
- \$20,000 (a 10 percent savings)
-

SH-19, Wilder to Caldwell corridor plan

- Status**
- Project study is underway
 - The original “Pre-Practical Design” estimate was \$200,000
 - The cost using Practical Design is \$180,000

- Savings**
- \$20,000 (a 10 percent savings)
-

SH-55, Deinhard Lane to Zachary Road, McCall

- Status**
- Contract has been awarded
 - The original “Pre-Practical Design” estimate was \$1,955,000
 - The low bid using Practical Design is \$1,078,000

- Savings**
- \$877,000 (a 45 percent savings)

Division of Highways

FY08 Practical Design Projects

— District 3 —

I-84, Leveling course, Cleft to Sebree

- Status**
- Contract has been awarded
 - The original “Pre-Practical Design” estimate was \$3,774,000
 - The low bid using Practical Design is \$2,230,000
- Savings**
- \$1,544,000 (a 41 percent savings)
-

District traffic study

- Status**
- Traffic study is underway
 - The original “Pre-Practical Design” estimate was \$100,000
 - The cost using Practical Design is \$90,000
- Savings**
- \$10,000 (a 10 percent savings)
-

District traffic-safety study

- Status**
- Traffic-safety study is underway
 - The original “Pre-Practical Design” estimate was \$100,000
 - The cost using Practical Design is \$90,000
- Savings**
- \$10,000 (a 10 percent savings)

Total FY08 savings in District 3: \$2,861,000

Division of Highways

FY08 Practical Design Projects

— District 4 —

U.S. 30, Twin Falls Main Canal Bridge 322

- Status**
- Reengineered and companioned with the bridge-outlet project below
 - Planning, specifications, and estimates will be completed by July 2009
 - Construction contract is scheduled for fall 2009

Est. Savings • \$100,000

U.S. 30, Twin Falls Main Canal Bridge outlet

- Status**
- Reengineered and companioned with the bridge project above
 - Planning, specifications, and estimates will be completed by July 2009
 - Construction contract is scheduled for fall 2009

Est. Savings • \$100,000

U.S. 30, Bliss to Malad River Bridge

- Status**
- Contract has been awarded
 - The original “Pre-Practical Design” estimate was \$965,000
 - The low bid using Practical Design is \$345,000

Savings • \$620,000 (a 64 percent savings)

SH-25, Milepost 18 to I-84 Junction

- Status**
- Contract has been awarded
 - The original “Pre-Practical Design” estimate was \$4,061,000
 - The low bid using Practical Design is \$1,861,000

Savings • \$2,200,000 (a 54 percent savings)

Division of Highways FY08 Practical Design Projects

— District 4 —

I-84/U.S. 93 Junction to SH-50 Interchange

- | | |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Status | <ul style="list-style-type: none">• Contract has been awarded• The original “Pre-Practical Design” estimate was \$1,725,000• The low bid using Practical Design is \$1,256,000 |
| Savings | <ul style="list-style-type: none">• \$469,000 (a 27 percent savings) |

Total FY08 savings in District 4:

\$3,489,000

Division of Highways FY08 Practical Design Projects

— District 5 —

U.S. 30, Dingle Road Turnout, Bear Lake

- Status**
- Contract has been awarded
 - Advanced from FY10
 - The original “Pre-Practical Design” estimate was \$2,990,000
 - The low bid using Practical Design is \$1,166,000

- Savings**
- \$1,824,000 (a 61 percent savings)
-

I-15, Deep Creek Interchange to Devil Creek Interchange

- Status**
- Contract has been awarded
 - Advanced from FY10
 - The original “Pre-Practical Design” estimate was \$2,990,000
 - The low bid using Practical Design is \$2,482,000

- Savings**
- \$508,000 (a 17 percent savings)
-

I-15, South 5th Interchange to Chubbuck Road, Phase 2

- Status**
- Contract has been awarded
 - Advanced from FY09
 - The original “Pre-Practical Design” estimate was \$5,775,000
 - The low bid using Practical Design is \$4,231,000

- Savings**
- \$1,544,000 (a 27 percent savings)

Total FY08 savings in District 5: \$3,876,000

Division of Highways FY08 Practical Design Projects

— District 6 —

U.S. 20, Rigby North and South

- Status**
- Contract has been awarded
 - The original “Pre-Practical Design” estimate was \$10,114,000
 - The low bid using Practical Design is \$8,820,000

- Savings**
- \$1,294,000 (a 13 percent savings)
-

U.S. 93, Doublesprings Road, South

- Status**
- Construction completed in June
 - The original “Pre-Practical Design” estimate was \$3,068,000
 - The low bid using Practical Design was \$1,721,000

- Savings**
- \$1,347,000 (a 44 percent savings)
-

U.S. 26, Granite Hill to Swan Valley Bridge

- Status**
- Contract has been awarded
 - The original “Pre-Practical Design” estimate was \$2,656,000
 - The low bid using Practical Design is \$2,353,000

- Savings**
- \$303,000 (an 11 percent savings)
-

U.S. 26, Junction to Bonneville County Line

- Status**
- Construction completed in September
 - The original “Pre-Practical Design” estimate was \$6,230,000
 - The low bid using Practical Design was \$5,276,000

- Savings**
- \$954,000 (a 15 percent savings)

Division of Highways

FY08 Practical Design Projects

— District 6 —

SH-48, Rigby to Ririe

- Status**
- Construction completed in August
 - The original “Pre-Practical Design” estimate was \$2,808,000
 - The low bid using Practical Design was \$728,000

Savings • \$2,080,000 (a 74 percent savings)

District-wide seal coats

- Status**
- Bids opened in June. Bids exceeded engineer’s estimate and were rejected
 - Project will be readvertised in the spring or summer 2009
 - The original “Pre-Practical Design” estimate was \$550,000
 - The estimated cost using Practical Design is \$535,000

Est. Savings • \$15,000 (a 3 percent savings)

U.S. 26, Clark Hill to Granite Hill

- Status**
- Contract awarded in June.
 - Advanced from FY12
 - The original “Pre-Practical Design” estimate was \$3,016,000
 - The low bid using Practical Design is \$2,982,000

Savings • \$34,000 (a 1 percent savings)

U.S. 20, Milepost 253 to Junction U.S. 20/26 West

- Status**
- Contract has been awarded
 - Advanced from FY09
 - The original “Pre-Practical Design” estimate was \$7,484,000
 - The low bid using Practical Design is \$6,608,000

Savings • \$876,000 (a 12 percent savings)

Division of Highways FY08 Practical Design Projects

— District 6 —

I-15, Osgood Interchange to Roberts Interchange, SBL *

- Status**
- Contract has been awarded
 - Advanced from FY12
 - The original “Pre-Practical Design” estimate was \$1,800,000
 - The low bid using Practical Design is \$1,575,000

- Savings**
- \$225,000 (a 13 percent savings)
-

I-15, Sage Junction to Hamer Interchange, NBL **

- Status**
- Contract has been awarded
 - Advanced from FY12
 - The original “Pre-Practical Design” estimate was \$1,700,000
 - The low bid using Practical Design is \$1,407,000

- Savings**
- \$293,000 (a 17 percent savings)

Total FY08 savings in District 6:

\$7,421,000

*Southbound lanes

**Northbound lanes

Division of Highways

— Efficiency Measures Completed in FY08 —

1 Peer review to improve efficiency and quality of department services

At the request of Director Pamela Lowe, the American Society of Civil Engineers (ASCE) conducted a peer review of the department's procedures, work programs, organizational structure, depth of experience, and budgets. During the review, ASCE conducted nearly 300 interviews with department staff across the state and additional interviews with staff at 15 partner agencies. The peer review identified operational processes that are going well and key opportunities for improvement.

What is going well

- Positive staff attitude and professional capability
- The new Mission Statement, Vision, and Goals provide a good foundation
- Engineering standards are comprehensive
- Practical Design program is generating substantial savings
- Teams communicate well
- Employees take pride in their work
- "New" management team is providing good leadership

Key opportunities for improvement

- The new management team would benefit from facilitated team building
- New initiatives and peer review should be tied to the strategic plan
- Department decentralization would benefit from enhanced communication
- Starting salaries for transportation technicians are inadequate
- Upcoming retirements of skilled employees will leave a knowledge gap that is not being adequately addressed
- Leadership training could be improved
- Maintenance is not being given as much attention as construction
- The department does not have adequate highway-management information systems
- Cross-department communication related to planning, design, and construction could be improved
- Practical design philosophy needs to be communicated better
- Innovation across the department is not being recognized adequately

The department is studying the ASCE's final report and will begin incorporating suggested improvements as soon as possible.

Outcome Increased efficiency, better communication, improved management systems

Division of Highways

— Efficiency Measures Completed in FY08 —

② **Practical rest area program cuts costs, saving \$7.8 million**

Applying the principals of Practical Design to the rest area program will save \$7.8 million over the next four years. Project budgets to rehabilitate five rest areas were reduced to zero and then redesigned to reflect only essential needs.

Outcome Saves \$7.8 million over four years

③ **UPDATE—Pressure limiters extend plow lives, saving over \$50,000 annually**

Installing down-pressure limiters extends the life of snowplow blades two to three times, saving the department between \$50,000 and \$60,000 annually. The \$500 blade server packages will pay for themselves an estimated minimum of 12 times during the service life of a truck. The pilot project proved so effective that three districts installed limiters. Within the next three years, all department snowplow trucks will be equipped with pressure limiters.

Outcome Saves \$50,000 to \$60,000 annually

④ **UPDATE—Wing plows clear roads faster, saving \$750,000 to \$850,000 annually**

Adding 16 new wing plows to the existing fleet of 61 will make trucks more efficient. This allows one truck to plow a 12-foot lane and shoulder at the same time rather than requiring two trucks to plow in tandem. Wing plows cut fuel and maintenance costs and allow drivers to finish priority routes sooner and more quickly proceed to secondary routes. This improves winter driving conditions without increasing personnel or the number of trucks.

Outcome Saves \$750,000 to \$850,000 annually

⑤ **UPDATE—Avalanche control cuts Idaho 21 closures by 50 percent**

Using explosives to bring down unstable snow before it slides and blocks the road reduced avalanche-related closures on Idaho 21 by 50 percent this winter. Idaho 21, one of the state's most popular winter recreation routes, has more than 50 avalanche chutes and is typically closed 60 days annually. During the 2007-08 winter—one of the hardest in recent years—Idaho 21 was only closed 28 days, largely due to the preemptive measures.

Outcome 50 percent reduction in avalanche closures on Idaho 21

Division of Highways

— Efficiency Measures Completed in FY08 —

⑥ **Snowplow simulator reduces accidents, saving \$61,000 annually**

Safely driving a snowplow requires skill. Maneuvering 30 tons of equipment through blizzards, traffic, and on challenging highways is difficult. From 2001 to 2006, the department experienced 169 snowplow accidents at a cost of more than \$300,000.

A vast majority of the accidents involved drivers with less than five years experience. That's why the department is following the lead of several other states in purchasing a snowplow simulator to train its new drivers and reduce accidents. Training has been provided in four of the six districts. Based on other state's experiences, the department will save an estimated \$61,000 annually by reducing the number of accidents, increasing fuel efficiency, and decreasing equipment wear.

Outcome Saves \$61,000 annually

⑦ **UPDATE—Farmable slope project cuts right-of-way costs, saving \$174,000**

The department spends up to \$6,000 an acre to seed, fertilize, mulch, and weed slopes adjacent to new highway construction projects. By flattening slopes so local landowners can farm them, there is no need for these steps and no costs. Farmed slopes are more stable, less likely to erode, and keep roadside ditch lines clear. Approximately 29 acres on Idaho 6 were flattened for farming this summer during an improvement project.

Outcome Saves \$174,000

⑧ **UPDATE—Guardrail-removing tool cuts repair time, saving \$78,000 annually**

Maintenance crews struggle with pulling and removing damaged or broken guardrail posts. To minimize repair time and increase safety, department employee John Reed engineered a hydraulic tool constructed by the Plummer maintenance crew. The tool, which is now used in two additional districts, saves approximately \$78,000 annually in labor and equipment.

Outcome Saves \$78,000 annually

Division of Highways

— Efficiency Measures Completed in FY08 —

⑨ **Practical Design cuts sign production costs, saving \$1,200 annually**

The Federal Highway Administration requires directional signs at interchange exit ramps to be at least 30 inches tall. To meet that requirement, the department was special ordering a six-inch panel to add to the readily available 12-inch panels. But the costs for the specially ordered six-inch panel were exceeding the costs of the 12-inch panels. Now the signs have been extended to a standard 36 inches, saving \$74 for each of the approximately 17 exit-ramp signs manufactured annually.

Outcome Saves over \$1,200 annually

⑩ **Fire-response plan covers all Interstate highways, saving \$60,000 annually**

Idaho had 140 miles of Interstate highway with no fire-response coverage. An average of six vehicle fires were occurring annually outside any fire jurisdiction, costing motorists and truckers up to an estimated \$10,000 in delays for each incident. When vehicles caught on fire in one of these areas, it was highly possible no fire jurisdiction was authorized to respond.

Vehicle fires threaten the safety of motorists, endanger emergency personnel, threaten the environment, and create costly traffic congestion and road closures. That's why the department partnered with the State Fire Marshall and eight fire agencies to respond to vehicle fires on Interstate highways. Response costs will be billed to insurance companies. The department is considering extending the approach to sections of Idaho 55 and U.S. 95.

Outcome Saves \$60,000 annually, fire response provided on entire Interstate system

⑪ **Sandbag filler reduces flood-preparation time, saving \$1,400 per truckload**

When heavy snowfall and spring runoff combine to raise Idaho's water levels, disaster planners begin stockpiling sandbags to prevent flooding. Filling the bags by hand is time consuming and often cannot keep up with the demand. Department employees Mark Elliston and Terry Johnson knew there had to be a better way. Using pieces of scrap metal, the two designed a funnel-shaped device to attach to the sander box. Using the sandbag filler, it now takes three employees an hour (\$140) to fill a truck with 480 sandbags. Without the filler, it would take 12 employees (\$1,550) to fill the same truck.

Outcome Saves \$1,400 per truckload

Division of Highways

— Efficiency Measures Completed in FY08 —

12 UPDATE—Idaho's fatality rate is lowest ever

Idaho's fatality rate continues to drop—reaching its lowest mark since 1978. The rate in 2007 was 1.59 fatalities per 100 million miles of vehicle travel, decreasing from 1.75 in 2006.

If the fatality and injury rates had remained at the 2002 level of 1.85, there would have been an additional 40 fatalities, 132 serious injuries, 1,871 visible injuries, and 748 possible injuries. However, Idaho still remains above the national average of 1.41 fatalities per 100 million annual vehicle miles of travel.

Outcome Saved 40 lives

13 Cross country web site assists Interstate 90 travelers

A new web site (i90i94travelinfo.com) helps motorists who travel the Interstate 90 corridor from Washington to Wisconsin. The North/West Passage web site features camera views, weather reports, rest-area and truck-stop information, commercial vehicle restrictions, and links to detailed road reports in each state. The department partnered with the Federal Highway Administration and five other states to fund the project.

Outcome Safer highways, more services offered

14 UPDATE—Upgrades to 511 Traveler Services improve safety and convenience

The 511 Traveler Services system (511.idaho.gov) now provides several new services, including improved voice-recognition capability, highway information that can be selected by highway section, improved incident location identification, a new menu option for truckers, and a high-speed Internet option that incorporates Google map technology. People with web-enabled mobile devices can now receive reports and photographs.

Outcome Increased highway safety, new services provided to the public

Division of Highways

— Efficiency Measures Completed in FY08 —

15 New web site provides locations of key animal crossings on state highways

Wildlife and vehicle collisions are deadly. There were 984 vehicle/wildlife collisions in 2007. That's why the department and the Idaho Department of Fish and Game established a new interactive web site to identify key locations where wild game is crossing highways. Motorists can review the web site and be more prepared to encounter wildlife in certain areas. Motorists are also encouraged to go to the web site to record any encounters with wildlife, living or dead. The data collected will help reduce wildlife collisions.

Outcome Increased highway safety, new services provided to the public

16 Training helps groups apply for Safe Routes to School grants

City and school officials from 21 Idaho communities improved their chances of receiving a 2008 Safe Routes to School federal grant by attending a training session hosted by the department. The Safe Routes to School program provides funding to increase the number of children walking or biking to school. This year, \$890,000 in grants were awarded.

Outcome Safe Routes To School training provided to 21 communities

17 Incident Management Plan identifies preferred detour routes

When a highway needs closing, the department and law enforcement officials can now refer to the Incident Management Plan to identify the best and safest alternative road on which to route traffic. The department developed the plan in partnership with city, county, and highway district officials across the state.

Car crashes, hazardous materials spills, and other incidents can cause lengthy delays, inconvenience motorists, and impose a financial impact to commercial traffic. The preferred detours identified in the plan are also the safest routes in the area.

Outcome Faster identification of the best alternate routes for road closures

Division of Highways

— Efficiency Measures Completed in FY08 —

18 Historical highway documents now available to public

Thousands of historical highway documents dating back to 1916 are now catalogued and available to the public through the state's library system. The department partnered with the Idaho Historical Society on this effort.

Outcome Historical documents now available to the public

19 More than 50 partnerships help control invasive weeds

The economic and environmental impacts of noxious weeds can be devastating. Many noxious weeds thrive in roadside ditches. To help combat the problem, the department partners with more than 50 federal, state and local agencies through the Idaho Weed Awareness Program. Through this cooperative effort, Idahoans learn about invasive weeds and efforts to prevent them from spreading.

Outcome Improves public awareness and involvement

Division of Highways

— Future Efficiency Measures —

① **Practical Design guide will develop best practices into policies**

The department's Practical Design program is the foundation of a new guidance document currently under development. This document, in electronic format, will transform best practices developed through Practical Design into policies. This will provide a blueprint for other divisions as they incorporate Practical Design into their operations.

Purpose Incorporate Practical Design philosophy into policies

② **Pavement Design Team will streamline processes, identify new efficiencies**

The Pavement Design Team will review the department's pavement-design and materials-project-development processes. The recommendations developed by this review are expected to produce significant dollars savings on future construction projects. The team will make recommendations to department management in December regarding:

- Streamlining and improving processes
- Identifying new materials and processes
- Placing accountability with the individuals who are in charge
- Creating opportunities for innovative ideas, processes, and specifications

Purpose Streamline and improve pavement design process and materials

③ **Pilot program to test electronic management of construction projects**

A test project on the Sand Creek Byway may allow all needed plans, inspections, and other records to be kept on a tablet computer in the future. Sandpoint engineers will access plans; make changes; and record inspection, testing and certifications electronically. The records will also be instantly accessible. This new process will allow engineers to spend more time in the field, reduce paperwork, and provide quicker and broader access to construction records.

Outcome Paperwork reduction; quicker, broader access to construction records

Division of Highways

— Future Efficiency Measures —

④ Project-scheduling software will help keep projects on time, on budget

Managers are testing scheduling software to help keep highway construction projects on time and on budget. The tool allows project managers to track key project milestones. It links multiple projects and activities to resources allowing bottlenecks and delays to be identified before they become issues. The software is being tested at the department's District 6 office and will be evaluated for full department use. The software package may be considerably less expensive than other options.

Purpose Improve project scheduling, keep projects on budget

⑤ More reflective highway signs will save lives and over \$500,000 annually

Highway signs can be increasingly difficult for older drivers to read at night. By age 75, drivers may need 32 times the brightness they did at age 25 to see properly in darkness. That's why the department is working to address this safety issue and make the sign replacement process more efficient. Signs on the state highway system are being upgraded to be more visible at night and are expected to last twice as long. Upgrading the 220,000 signs on the state highway system will take several years. When all signs have been upgraded, the state's annual sign-replacement costs will be reduced by approximately \$500,000 annually.

An independent four-state evaluation determined the new signs offer a benefit/cost ratio of greater than ten-to-one for crash reductions.

Purpose Save over \$500,000 annually, improve driver safety

⑥ LED warning lights in trucks could reduce fuel use and air pollution

Keeping warning lights flashing on department vehicles currently requires the engine to be on. Idling engines waste fuel and contribute to air-quality issues. That's why the department is evaluating LED amber warning lights for its vehicles. LED lights reduce the draw on the battery allowing the engine of a parked vehicle to be turned off while the lights are flashing. The evaluation will be complete in 2009.

Purpose Reduce fuel use, improve air quality

Division of Highways

— Future Efficiency Measures —

7 Pilot project tests statewide use of salt brine as de-icer

Two department districts manufacture and use salt brine as a highway de-icer rather than the more expensive magnesium chloride. During the 2008-09 winter season, the remaining four districts will each identify a test highway and use the brine as well.

The brine is being effectively used in the Coeur d'Alene and Pocatello regions. If proven successful in other areas of the state, there is potential to save substantial money over purchasing magnesium chloride.

Outcome Determine if salt brine will work in all six districts

Division of Highways

Materials and Testing

— Efficiency Measures Completed in FY08 —

The department worked with the Idaho Associated General Contractors to identify and implement efficiency improvements to its materials and testing specifications.

The improvements reduced manpower requirements, increased contractor flexibility, and reduced costs. The following efficiency measures are included in the specifications and testing procedures for all new projects.

① **Reduce drain-pipe testing to one test every 200 feet**

Backfill for drain pipes is currently required to be tested at a ratio of one test per 100 feet. This requirement was implemented when compaction equipment and methods were not as effective or efficient as the equipment currently in use. This measure relaxed the pipe requirement to one test per 200 feet.

Outcome Labor savings, cost reduction

② **Determine aggregate strength requirements based on proposed use**

The aggregate strength requirement was the same statewide, regardless of the use. Not all aggregate sources produce aggregates that meet the requirement, which increases bid prices due to the distances aggregate must be transported. This measure adjusted the requirement for aggregate strength based on the use, making more aggregate sources available.

Outcome Cost reduction, more material sources available

③ **Reduce paperwork requirements for light posts and signal posts**

The paperwork previously required for the certification of light and signal posts was more complicated than is necessary. This measure provides more inspector training and reduces the amount of paperwork required to certify the posts.

Outcome Labor savings, paperwork reduction

Division of Highways

Materials and Testing

— Efficiency Measures Completed in FY08 —

④ **Simplify and improve the Quality Assurance Manual**

The Quality Assurance Manual was overly complicated and difficult to use. This measure simplified the manual and includes the requirements in the contracts.

Outcome Customer service improvement

⑤ **Reduce asphalt plant-mix requirements for non-structural uses**

The previous specifications for the asphalt plant mix used in guardrail installations was based on roadway specifications, and were too restrictive, as most commercial plant mix is adequate for non-structural applications. This measure relaxed the requirement, reduced testing, and lowered costs.

Outcome Labor savings, cost reduction

⑥ **Reduce embankment-material gradation testing to one test for every 5,000 cubic yards**

The previous specifications for testing granular borrow material used in embankments required repeated testing of the material. This measure reduced the testing requirements by half to one test for every 5,000 cubic yards of material.

Outcome Labor savings, cost reduction

⑦ **Pay for Superpave compaction based on quality**

Contractors were previously paid for Superpave plant mix based on gradation, asphalt content, and density. This measure began a transition to paying contractors based on the quality characteristics of Superpave rather than rigid specifications.

Outcome Motivates contractors to care more about quality, which creates pavements with longer lifecycles

Division of Highways

Materials and Testing

— Efficiency Measures Completed in FY08 —

⑧ **Reduce subgrade-density testing to one test for every 5,000 cubic yards**

The previous specifications for testing the natural ground under embankments were excessive, overly labor intensive, and exceeded the requirements of surrounding states. This measure lowered the frequency of subgrade testing by more than half, based on the project engineer's assessment and the variability of soils.

Outcome Labor savings, cost reduction

⑨ **Return to visual testing of pulverized roadbed material**

The verification of pulverized roadbed material had evolved over time from a visual inspection to a materials-testing inspection, which was unnecessary. This measure returned to the requirement of performing only one test, then documenting with visual inspections.

Outcome Labor savings, cost reduction

⑩ **Reduce Superpave verification testing to twice per shift**

Previous specifications required Superpave to be tested by the state every 1,500 tons of material. This measure reduced the testing frequency to a maximum of two tests per shift.

Outcome Labor savings, cost reduction

⑪ **Clarify dust-abatement testing procedures that use magnesium chloride**

The manual for magnesium chloride used for dust abatement was unclear. Acceptance requirements for magnesium chloride now show testing or certification, not both.

Outcome Labor savings, cost reduction

Division of Highways

Materials and Testing

— Efficiency Measures Completed in FY08 —

12 Test Superpave aggregate only at test strip

Superpave aggregates were previously required to be tested for angularity, flatness, elongation, and fracturability at the test strip and during production paving. This measure eliminated the required testing during production paving.

Outcome Labor savings, cost reduction

13 Make Superpave mix confirmation optional for temporary, structural, or small projects

Superpave mix-confirmation testing was previously required for all designs. This measure made the testing optional for plant mix used for temporary or non-structural applications, and for roads designed to receive less than one million single-axle-loads.

Outcome Labor savings, cost reduction

14 Increase to 85 degrees the maximum concrete temperature allowed during placement

The maximum temperature for concrete during placement was previously 80 degrees. This measure increased the maximum temperature allowed to 85 degrees for structural concrete.

Outcome Fewer loads rejected, cost reduction

15 Allow high-water reducers at a maximum water/cement ratio

High-range water reducers were previously allowed with restrictions on water/cement ratio and mix gradations. This measure allows high-range water reducers at the maximum water/cement ratio without the gradation requirements. This reduces the number of concrete mix designs, simplifies specifications, and allows greater contractor flexibility.

Outcome Simplify specifications, increase contractor flexibility

Division of Highways

Materials and Testing

— Efficiency Measures Completed in FY08 —

16 Reduce gradation and sand-equivalency requirements for structural concrete to one test per 1,000 cubic yards

Gradation and sand-equivalency tests were previously required once every 670 cubic yards. This measure lowered that requirement to once every 1,000 cubic yards.

Outcome Labor savings, cost reduction

17 Take Superpave samples at the plant after test strips are completed

All plant mix was previously sampled from the roadway. This measure allows Superpave to also be tested at the plant after test strips are completed.

Outcome Smoother, higher-quality roads

18 Allow self-consolidating concrete in design specifications

Self-consolidating concrete was not authorized by the standard specification manual. This measure updated the manual to allow the use of new self-consolidating concrete technology.

Outcome Cost reduction, labor savings, increased efficiency, higher quality material

19 Stop requiring volumetric testing of Superpave on low-volume roads

Volumetric testing of superpave was previously required for all projects. This measure eliminated the volumetric testing requirement during production for Superpave on low-volume roads.

Outcome Cost reduction, less testing

Division of Highways

Materials and Testing

— Efficiency Measures Completed in FY08 —

20 Lower the aggregate quality for Superpave on low-volume roads

Specified aggregate qualities for Superpave was previously the same for all projects. This measure reduced the aggregate quality requirements for low-volume roads.

Outcome Cost reduction, more aggregate sources made available

21 Reduce the requirements for shoulder-pavement thickness

Shoulder-thickness requirements did not previously allow the use of thinner pavements. This measure allows thinner shoulder pavements in areas that are not subject to early failure.

Outcome Allow thinner shoulder pavements in locations where anticipated use will not cause early failure

22 Allow the use of standard local pavement designs or match existing pavements

Small projects such as bridge approaches and minor widening on local roads will no longer need full-life pavement designs. Projects will match the existing pavement or a local minimum design. This is a strong practical savings because roadway traffic is light and pavement failure of the main pavement will cause the entire roadway to be reconstructed, no matter how strong any short patches or widening are.

Outcome Reduce engineering requirements and costs, lower pavement costs

23 Allow the use of commercial concrete mixes with reduced alkali silica reactivity requirements for use in non-structural applications

Many locations where concrete is used on highway projects are low risk, such as small sign foundations, fill concrete, curbs, gutters, and sidewalks. Most of this concrete within cities is standard commercial mix. Using this new specification will allow for commercial concrete in low-risk areas in place of structural concrete with less testing and significant savings.

Outcome Cost reduction, less testing

Division of Highways

Materials and Testing

— Future Efficiency Measures —

① **Develop materials-dispute specifications to cover all materials**

Many specifications were written when there were few or no commercial testing laboratories or quality control within contractors' operations. Some contractors and suppliers now have quality control within their processes. A portion of the department's specifications allows contractor testing to be used in the decision to accept material or to dispute failed testing. This measure will open up more of the department's specifications to allow the use of contractor quality testing results.

Purpose Allows more flexibility in testing processes

Status In process

② **Review the Qualified Product Listing (QPL) Program**

The QPL program provides a list of pre-approved products contractors can purchase for construction projects. Staff will review the QPL Program to identify improvements that can be implemented to streamline the program and improve its ease of use. The review will also include researching the QPL programs of surrounding states to identify products for possible inclusion in Idaho's program.

Purpose Streamline the program, improve ease of use

Status Internal process has been reorganized, software is being updated

③ **Research Portland Cement requirements, specifications, and certification**

Research the requirements, specifications, testing, and certification of Portland Cement Concrete for use in Idaho. This will include optimizing aggregate gradation, reviewing admixture use for durability issues, and acceptance and testing of constituent materials (cement, fly ash, aggregate, etc.) This research will be conducted by Idaho State University and will target quality and economical applications.

Purpose Optimize aggregate gradation

Status Research project underway

Division of Highways Materials and Testing

— Future Efficiency Measures —

④ **Incorporate the statistical acceptance of concrete paving into the specification**

Concrete paving is currently accepted after physical testing. Statistical acceptance would allow end-result quality testing, reducing costs through innovation.

Purpose Cost reduction

Status The specification is complete. Measure has been reviewed by the Idaho Associated General Contractors. Project implementation is being discussed.

⑤ **Optimize concrete aggregate for up to a 20 percent reduction in cement**

Current specifications do not take advantage of new technology which can optimize aggregate size. This measure will result in the development of new specifications to incorporate new engineering principles.

Purpose Cost reduction

Status Research project underway

⑥ **Stop requiring lab verification for optimized concrete mixes**

Mixes are currently required to be confirmed in a lab. This measure would create specifications to allow documented confirmation for optimized mixes, removing the lab requirement for mix verifications.

Purpose Testing reduction, labor savings, cost reduction

Status Research project underway

Division of Highways

Materials and Testing

— Future Efficiency Measures —

⑦ **Add testing tolerance ranges for the air content of structural concrete**

Current testing specifications do not allow a testing tolerance for air content. This measure will add a tolerance range to the test results, which will lower the amount of concrete rejected due to testing variations.

Purpose Cost reduction

Status Revision underway

⑧ **Research slump testing for quality control**

Research the possibility of changing slump testing from an “acceptance criteria” to a quality-control test for workability, placeability, and consistency. Concrete slump tests are a better indicator of material behavior than as an indicator of final quality. Specifications will be developed in cooperation with the concrete suppliers to use unit weight as an indicator of quality.

Purpose Improve testing indicators for material behavior

Status Research project underway

GARVEE

— Innovation and Project Acceleration —

Delivering a successful Grant Anticipation Revenue Vehicle (GARVEE) bond program requires accelerated project-development and construction techniques, streamlined processes, and value engineering.

The goal is to deliver high-quality projects faster, safer, and more cost effectively with less impact to highway users. This section highlights some of the specific innovation and acceleration techniques being used on GARVEE projects.

① Design and right-of-way acquisitions accelerated, saving \$3.5 million

A new project-delivery concept is now allowing GARVEE projects to be completed earlier than through traditional processes, resulting in significant cost and time savings. In 2007, the Federal Highway Administration authorized, with conditions, accelerated final design and early right-of-way acquisition under the Special Experimental Project (SEP-15) program in Idaho. The process is being used to purchase qualifying right-of-way parcels on the southern part of the U.S. 95 Garwood to Sagle corridor and is being considered for use on the Idaho 16, U.S. 20/26 to Idaho 44 extension.

Outcome \$3.5 million saved on two projects, schedules shortened by one year

② Phased-construction moves up starting date, saving \$2.3 million

Construction on the I-84, Garrity to Meridian corridor started one year early with more competitive contractor bids through the use of phased-construction. The project was separated into seven discipline-specific packages such as earthwork and drainage, roadway reconstruction, and bridge construction to attract specialty contractors.

Using this approach allows construction to start earlier. Instead of advancing one large project that would have to be completely designed before it was advertised, phased construction allowed work to start an entire season early. This approach is being used on other GARVEE projects. The size and complexity of the corridor lends itself to consideration of alternative staging.

Outcome \$2.3 million saved, project construction started one year early

GARVEE

— Innovation and Project Acceleration —

③ **Combining work provides seamless service to public, saving \$180,000**

Combining work where possible on the I-84 corridor provides better service to the public and reduces the amount of staff-coordination work. An example of this innovative approach is the traffic-control contract on the I-84 West project. Typically contracts would be issued for individual segments of the project. The unique size, scope, and timing of the project phases allow a single contractor to provide the service. This delivers more seamless travel for the public and saves \$180,000 in contract costs.

Outcome \$180,000 saved, staffing requirements reduced

④ **Completion incentives shorten construction times**

A “no excuses incentive” bonus reduced construction by seven months on the I-84 Broadway Interchange to Eisenman Interchange pavement rehabilitation project. Completing the project early reduced construction impacts and allowed motorists to drive on a new roadway surface before winter.

The department also is offering contract incentives to finish early on the I-84, Franklin Boulevard Bridge project in Nampa, and the I-84, Robinson and Black Cat bridges project between the Garrity and Meridian interchanges.

Outcome Project schedule shortened by seven months

⑤ **Alternate pavement-option bids saving \$3 million**

Almost \$3 million was saved on the I-84, Garrity Interchange to Ten Mile project by allowing contractors to submit alternative bids for either a concrete or asphalt pavement. A life-cycle cost adjustment made the two options equal in value. The low bid for asphalt was \$3 million less than concrete. This is the first project on which the department used this bidding technique.

Outcome \$3 million saved in bid alternatives

GARVEE

— Innovation and Project Acceleration —

6 “Value engineering” review process reduces project costs

GARVEE projects reviewed through the value engineering process identified significant savings. The department requires value engineering studies during the development of projects that are estimated to cost \$25 million or more. Value engineering offers alternative ideas to reduce costs without compromising the purpose of projects. Listed below are savings identified through value engineering on GARVEE projects. All savings are reinvested back into the corridor where the savings occur.

- **Idaho 16, I-84 to Idaho 44 Corridor** — Modifying typical sections will reduce overall roadway width and reduce costs by \$29.8 million. Roughly one third of these savings are attributable to the section between U.S. 20/26 and Idaho 44 that is scheduled to be constructed in the GARVEE Program. Modifying the design of the future Idaho 16, Franklin Road Interchange will reduce the number of required structures from nine to two and reduce costs by \$26.2 million, while maintaining all necessary functions of the interchanges.
- **I-84, Karcher Interchange to Five Mile Road** — Modifying bridge-abutment designs at Robinson Boulevard and Black Cat Road reduced construction cost estimates by \$750,000.

Using a diamond interchange design at the Garrity Interchange and replacing rather than widening existing bridges increases initial costs by \$1.7 million, but will create life cycle cost savings of \$2 million by avoiding widening the bridges before they need significant maintenance or repair.

Eliminating five sections of auxiliary lanes in the corridor and making lane modifications for the Karcher Interchange will save \$3.85 million.

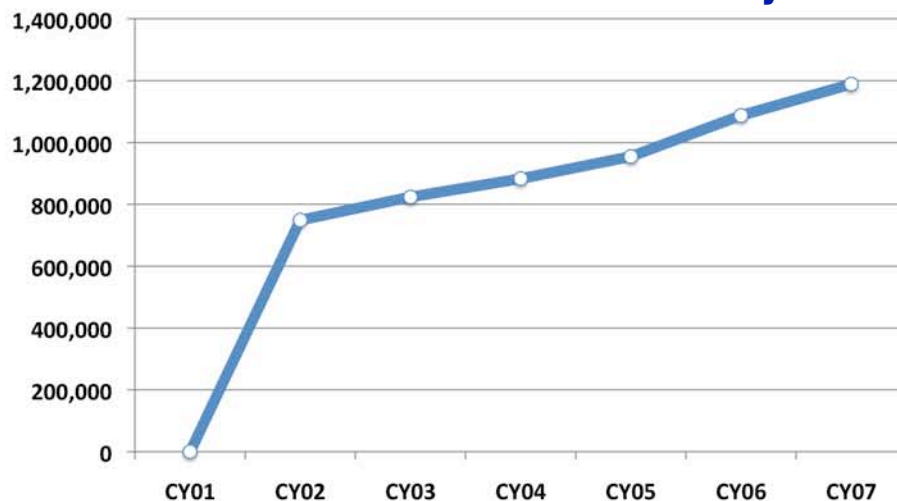
- **U.S. 95, Garwood to Sagle Corridor** — Modifying the design and the extent of right-of-way acquisition will allow more improvements to be added to the U.S. 95 project within the existing budget. The original design would have provided 12 miles of four-lane highway. The modifications allowed the project to be extended to 16 miles of four-lane highway, and added three interchanges where there were previously signalized intersections planned, plus 4.5 miles of safety improvements in another area of the corridor.
- **U.S. 30, McCammon to Soda Springs** — Designing modifications to the median width, reviewing material types and foundation reports, and reviewing drainage features and structure types all improved the design while providing a quality facility.

Division of Motor Vehicles

— Efficiency Measures Completed in FY08 —

The department handled massive workload increases created by rapid population growth without adding employees. New technology allows employees to process more work and provide better services.

Online Transaction History



① New online services shorten waiting lines, saving \$42,500 annually

With the addition of the two services listed below, the department now provides 10 major DMV services online. The new services increase customer convenience and decrease lines.

- *Driver license reinstatements* – Customers can now reinstate licenses without phoning or driving. Subscribers can also find out if their employees have valid driver licenses. Three employees previously assigned to the counter will be re-deployed, which eliminates the need to hire one new employee. This will save an estimated \$40,000 annually beginning in FY10. Closing the counter may also reduce the need for security services.
- *Hazardous waste endorsements* – In addition to obtaining and renewing hazardous waste endorsements, customers can now correct or cancel their endorsements online. This saves approximately \$2,500 annually and eliminates the need for customers to mail or FAX hard copy requests detailing their corrections and deletions.

Outcome Saves \$42,500 annually, improves service, reduces paperwork

Division of Motor Vehicles

— Efficiency Measures Completed in FY08 —

② **Print-on-demand license plate decals reduce fraud, saving \$520,000**

County assessors can now print plate decals when they need them rather than having to stockpile large quantities of pre-printed decals. The print-on-demand decals display a number matching the customer's license plate number—helping law enforcement officers prove the validity of vehicle registrations. The system also reduces opportunities for fraud, reduces county inventory requirements, has \$360,000 in one-time replacement printer savings, and \$160,000 in annual savings.

Outcome Saves \$520,000, reduces vehicle-licensing fraud and county inventories

③ **New county computers shorten waiting lines, saving \$15,000 annually**

New computers and printers at 104 county offices save \$15,000 annually by eliminating the need for maintenance contracts for the old equipment, and provide more reliable and substantially faster service to customers. Data security improved dramatically.

Outcome Saves \$15,000 annually, shortens lines, improves data security/reliability

④ **Virtual ports of entry increase highway safety, saving \$60,000 annually**

Two new virtual ports of entry enhance border security and increase the number of international truckers complying with Idaho law. The online ports photograph international trucks, record their size and weight, and immediately relay the data to the Idaho State Police. The ports eliminated the need to hire one employee, saving \$60,000 annually. The ports are located on U.S. 95 and Idaho 1 in Boundary County.

Outcome Saves \$60,000 annually, improves highway safety and border security

⑤ **Electronic license-suspensions speed processing, saving \$7,200 annually**

Administrative-license-suspension hearing records are now stored and transmitted electronically, saving \$7,200 annually in postage. The electronic system provides documents to attorneys and others up to three days faster than the previous paper-based system.

Outcome Saves \$7,200 in annual postage costs, provides faster customer access to data

Division of Motor Vehicles

— Efficiency Measures Completed in FY08 —

6 **Digital-image program reduces fraud and improves customer service**

When drivers from other states apply for an Idaho driver license, the new program provides examiners with each applicant's most-recent photo and identifying information. This program can identify fraudulent license applications and provides faster service for legitimate customers.

Outcome Shorter waiting lines, fraud reduction, faster service

7 **UPDATE—New automated driver testing increases customer convenience**

All 44 county sheriff offices now provide computerized driver-license-exam kiosks. The 147 testing stations installed across the state increase customer convenience and provide instant test results. The test results show applicants the correct answers for the questions they missed. The automated kiosks also reduce waiting lines, administrative costs, and the risk of testing fraud.

The automated exams are currently offered in four foreign languages. That number will be increased to seven in 2009.

Outcome Instant driver-testing results, less testing fraud, shorter waiting lines

8 **Changes to salvage-vehicle-inspection process improve service**

County offices can now review and process title applications for rebuilt salvage vehicles. Previously, customers had to contact and schedule appointments with one of the department's motor vehicle investigators. The new program allows motor vehicle investigators to spend more time responding to consumer complaints and assisting motor vehicle dealers in their efforts to comply with Idaho Code.

Outcome Customers at county offices can now apply for titles on rebuilt salvage vehicles

Division of Motor Vehicles

— Future Efficiency Measures —

① **Purchasing smaller ports-of-entry roving trucks will save over \$260,000**

The Ports of Entry will begin using smaller 3/4-ton trucks instead of one-ton trucks. Over the next ten years, this will save \$187,000 in purchase costs and \$76,000 in fuel. The smaller trucks became an option due to a redesign of the cargo-storage frames.

Purpose Save more than \$260,000 over ten years

② **New kiosks at ports of entry will increase safety, saving \$180,000 annually**

Truckers will be able to obtain required paperwork and safety information at five new kiosks at the East Boise, Inkom, Cotterel, Huetter, and Sage Junction ports of entry. This will eliminate the need for an inspector to personally issue paperwork. Installation of the kiosks will remove the need to hire three new employees at high-volume ports, saving \$180,000 annually.

Purpose Save \$180,000 annually, eliminate the need to hire three new employees, improve highway safety, increase customer service

③ **Overlegal permits will soon be available online, saving \$5,600 annually**

A new online service will allow customers to obtain renewal notices at their convenience via the Internet and correct any errors. The department currently produces semi-annual paper reports listing the details of each company's overlegal permits. Staff currently review the reports for accuracy and mail them out twice annually. The online service will save an estimated \$5,600 annually in paper and postage costs.

Purpose Save \$5,600 annually, improve customer service

④ **Commercial truck registration system will improve safety and security**

A new commercial truck registration system will improve safety by insuring that unsafe vehicles and carriers are denied registrations and removed from the road. The new system also provides incentive for carriers to comply with federal safety requirements prior to qualifying for registration.

Purpose Improve highway safety, improve allocation of limited resources

Division of Motor Vehicles

— Future Efficiency Measures —

⑤ **New online service will reduce number of uninsured young drivers**

A new online service provided to Idaho insurers will reduce the number of uninsured young drivers. This new service should be available in early 2009. It will allow insurers to determine if driver licenses have been issued to young drivers within the households of their insured customers. Insurers will be able to notify their customers of the need to insure any new drivers identified by the new service.

Purpose Reduce the number of uninsured young drivers on Idaho roads

Division of Administration

— Efficiency Measures Completed in FY08 —

1 Practical Design principles improve efficiency, saving \$77 million

The department improved its facility program by incorporating the principles of Practical Design. Incorporating these principles cut \$77 million from the six-year facility program, which manages 560 buildings across the state. The improvements include:

- Canceling bonding requests for new headquarters and District 3 offices.
- Eliminating plans for new District 4 office buildings.
- Replacing old heat pumps with high-efficiency gas boilers and variable-speed chillers at department headquarters, saving an estimated \$2,000 annually.
- Replacing most of the light fixtures at headquarters with high-efficiency fixtures, saving an estimated \$2,000 annually.
- Replacing the roof on the headquarters supply building with a cool roof to reduce heat gain.

Outcome Saved \$77 million, improved building efficiency

Future projects include:

- Replacing 300-watt exterior lights at the headquarters building with new 100-watt high pressure sodium lamps. Estimated savings will be \$200 annually.
- Replacing the District 4 office back-up diesel generator with an efficient, clean-burning natural gas generator.
- Upgrading HVAC controls and equipment for the District 1 office.
- Re-roofing eight buildings with energy-efficient roofing materials.
- Remodeling and building an addition to the District 2 office, and building 12 sand sheds.

2 Online credit card fees now paid by customers, saving \$45,000 annually

The 1.5 percent to 2.5 percent customer-convenience fees charged by credit card companies for online transactions were previously paid by the department. These fees are now passed onto customers for online transactions, saving the department nearly \$45,000 annually.

Outcome \$45,000 annual reduction in fees paid to credit card companies

Division of Administration

— Efficiency Measures Completed in FY08 —

③ **Reviewing software license cuts costs, saving \$20,000 annually**

A review of the department's Help Desk software license is saving almost \$20,000 annually. The effort is part of a systematic evaluation of the department's software and licensing costs.

Outcome Saves \$20,000 annually

④ **Online reporting system reduces paper costs, saving over \$17,000 annually**

Using the State Controller's online reporting system for the department's DMV reporting requirements reduces paper costs and provides easier access to data.

Outcome Saves \$17,000 annually

⑤ **Human Resources intern helps staff, saving \$7,800**

Using a non-paid volunteer intern is saving the department time and money while providing valuable experience to a person seeking to begin a human-resources career.

Outcome Saves \$7,800

⑥ **Highway maps now printed every two years, saving \$62,500 annually**

The availability of maps via the Internet reduces demand for paper versions of the state highway map. In cooperation with the Idaho Bureau of Travel Promotion, the department now prints the maps every two years rather than once per year, saving \$62,500 annually.

Outcome Saves \$62,500 annually

⑦ **"Practical" out-of-state travel review reduces trips, saving \$32,000**

Reviewing the department's 2009 out-of-state travel budget using Practical Design principles showed 19 trips that could be cut, saving \$32,000. Employee travel is necessary for the department to participate in national transportation organizations, inspect out-of-state construction materials, and meet its federal and state requirements for training. Many innovative efficiency ideas originate at conferences.

Outcome Saves \$32,000

Division of Administration

— Efficiency Measures Completed in FY08 —

8 Volunteers fill language gap for customers

To help improve service with its diverse customers, the department identified 18 employees who speak additional languages. Employees can assist customers who speak Spanish, German, Vietnamese, Chinese, Bengali, Swahili, Urdu, Hindi, Punjabi, and use sign language.

Outcome Customer-service improvement

9 Prompt payment process simplified for contractors

A new process allowing prime contractors to certify once a month that they have paid all of their subcontractors is saving time and paper work. Under the old process, contractors submitted certification for each payment including the date and amount. Now contractors submit one report per month and certify only that payment has been made.

Outcome Process improvement

10 New phones assist hearing impaired

New telephones in headquarters and the District 3 offices can receive calls from hearing impaired customers. The phones also help the department comply with the Americans With Disabilities Act.

Outcome Customer service improvement

11 Improvements to financial system increase efficiency

New software and hardware significantly improved the functionality and efficiency of the department's financial system. Before the upgrade, many reports were difficult to complete. Data interfacing and backups were becoming an increasing challenge. The upgrades improved the financial, procurement, and human resources systems.

Outcome Process improvement

Division of Administration

— Future Efficiency Measures —

① **Intranet tools will improve efficiency and reduce e-mail volume**

Using Intranet collaboration tools will allow the department to share project information easier, improve efficiency, and reduce e-mail messages and storage requirements. Final testing is currently underway.

Purpose Reduce e-mail volume, improve efficiency

② **Voice-Over-Internet system will cut phone costs and improve efficiency**

Replacing the current phone system with a Voice-Over-Internet system will improve functionality and reduce the number of phone systems used in the department to one centralized system. This will improve efficiency by freeing staff to work on other duties, improving management of voice mail, and adding call-center functionality for the DMV. The new system will be installed when funding becomes available.

Purpose Improve the phone system

③ **Data-warehousing initiative will speed service**

Implementing a data-warehousing system will improve response to requests for a wide range of financial, procurement, payroll, and human-resource information. Both internal and external customers will benefit from the improved service. The project is scheduled to be completed in July 2009.

Purpose Provide quicker response to data requests

④ **Document scanner will speed document processing**

Expanding use of the department's check and document scanner to the Division of Motor Vehicles and Division of Aeronautics will speed payments. The machine can scan and process checks, invoices, and other documents. It can process customer payments and create a computer file that updates the financial accounting system or DMV applications. The department is looking at how the scanner could be used in title applications or for pilot and plane registrations.

Purpose Allow additional divisions to scan financial documents electronically

Division of Aeronautics

— Efficiency Measures Completed in FY08 —

① **UPDATE—Newsletter advertisements offset costs, saving \$4,800 annually**

Accepting advertising for the department's aviation newsletter, *The Rudder Flutter*, generates over \$4,800 annually—almost half of the cost to publish this newsletter. The advertising also alerts airmen to statewide aviation services and promotes the growth of the aviation industry.

Outcome Saves \$4,800 annually

② **Inverting wind socks doubles their design-life, saving \$1,750 annually**

Windssocks provide vital information to pilots at all airports. These high-visibility cloth devices fade significantly from continuous exposure to sunlight and require frequent replacement. The department now uses a simple fastener kit allowing the socks to be inverted, essentially doubling their lives and reducing the cost of replacing approximately 100 windssocks annually.

Outcome Saves \$1,750 annually

③ **Revenue increase dedicated to improving Idaho's aviation system**

Revenue generated by the increase in aviation fuel tax is being dedicated exclusively to improving Idaho's aviation system. Of the \$426,000 increase in aviation fuel tax funding, \$381,000 will support Idaho airports, \$25,000 will be used to publish aviation charts and directories, \$10,000 will be dedicated to revitalizing search and rescue training, and \$10,000 will be used to support the newly established Idaho Airstrip Network that supports public access to backcountry airstrips not operated by the state. None of the increase will be used for internal department operations.

Outcome Airport improvements, program/publication/training enhancements

Division of Aeronautics

— Future Efficiency Measures —

① **Online pilot and aircraft registrations will improve service**

An online service to register pilots, aircraft, and aviation dealers will be available in 2009. Pilots will be able to access the service at any time via the Internet and there is no longer a need for the department to mail both renewal notices and registrations.

Purpose Register pilots and aircraft online

② **Print on-demand registrations will speed processing, decrease fraud**

Currently, more than 4,500 pilot and aircraft registrations are processed annually by hand. The department is investigating using DMV's print-on demand system to process the registrations. Using the DMV system would reduce clerical processing time and improve customer service, improve financial accountability, and allow aircraft registration numbers to be displayed on decals.

Purpose Automate the aircraft registration system

③ **Online system will allow agencies to check state airplane schedule**

A test version of an online passenger-scheduling feature was introduced in 2008 that allowed state employees to schedule or check the availability of seats on the state's airplane. Improvements were identified and upgrades are now being made to the system.

Purpose Provide an online scheduling service for the state airplane

Division of Public Transportation

— Efficiency Measures Completed in FY08 —

① Online rideshare program covers all counties, saving \$33,500 annually

Motorists wanting to rideshare now have access to a statewide web site. The program allows ride-matching for individuals, vanpooling, ridesharing, event sharing, etc., within all Idaho communities. Prior to expanding the program, only three counties, representing less than 40 percent of the state's population, had access to rideshare opportunities. Statewide sponsorship of this program reduced the cost for each participating grantee by 30 percent, saving an estimated \$33,500 annually.

Outcome Saves grantees \$33,500 annually, expands services statewide

② Consolidating advisory groups cuts staff time, saving \$5,000 annually

Consolidating two statewide public transportation meetings saves \$5,000 annually. The statewide Public Transportation Advisory Committee quarterly meeting and the statewide Interagency Working Group quarterly meeting were combined. The consolidation reduces staff time by 240 hours and meeting costs by \$5,000 annually.

Outcome Saves \$5,000 annually, cuts staff time by 240 hours annually

③ Teleconferencing and webcasting reduces travel costs

Webcasting of meetings saves time, reduces travel costs, and improves participation. Many of the department's public transportation stakeholders must travel to meetings. The teleconferencing and webcasting system allows participation from a home or office. This option cuts travel time and costs for department personnel.

Outcome Reduces travel costs, increases public participation

Division of Public Transportation

— Efficiency Measures Completed in FY08 —

④ **Mobility partners rally to assist Gem County seniors**

When the Gem County Senior Citizen's Center asked for help in finding a replacement for a broken-down van, Idaho's mobility partners responded. A blanket e-mail sent by the department produced quick results. Treasure Valley Transit provided a 1999 Ford Van in excellent shape to the seniors to use until their broken-down vehicle can be replaced.

Outcome Provided a temporary van for Gem County seniors

Division of Public Transportation

— Future Efficiency Measures —

① **Mobility networks will improve partnerships, saving \$160,000**

Creating 17 Local Mobility Management Networks across the state will allow local transportation stakeholders to create regional plans; streamline decision-making; and identify and correct service gaps, duplications, and coordination inefficiencies. The networks will improve the ability to leverage funding for bike, pedestrian, rail, and bus plans.

The networks will reduce the need for individual community transit plans that cost between \$35,000 and \$45,000 each. By consolidating community plans into 17 regional plans, Idaho communities will save an estimated \$160,000.

Purpose Save \$160,000, improve partnerships, streamline decision-making, improve services and the ability to leverage funding

② **Simplifying grant process will cut time, saving \$2,500 annually**

To complete all nine public transportation grant program applications, customers must submit more than 450 pages of information annually. A new application only requires 30 pages of information. When the system goes online, it will reduce the requirement to 10 to 15 pages. Grantees will be able to update their applications any time, day or night. Grants will be processed faster with lower paper, envelope, and postage costs. This simplification will dramatically reduce the amount of department and grantee staff time, saving \$2,500 annually.

Purpose Save \$2,500 annually; reduce paperwork, postage, and staff time requirements

③ **Vehicle-inspection partnerships will cut travel, saving \$35,000 annually**

A statewide partnership will improve the vehicle-inspection process and save \$35,000 annually. The Federal Transit Administration requires new vehicles to be inspected when new and then every two years thereafter. The department conducts 20 to 35 new inspections and 125 bi-annual inspections each year. The average travel costs for each inspection are between \$250 and \$500. Using inspectors from area transit providers to inspect vehicles for other providers will save an estimated \$35,000 in annual travel costs.

Purpose Save \$35,000 annually, cut staff time

Division of Public Transportation

— Future Efficiency Measures —

④ **Multi-year grant agreements will cut staff time and stabilize funding**

A new multi-year grant process will reduce the staff time required for the department and grant recipients to complete the yearly application cycle. The multi-year approach will allow transit providers to better plan purchases and services.

Purpose Reduce staff time for grant recipients and the department

⑤ **Electronic transit-vehicle procurement system will cut staff time**

An electronic procurement system for transit-vehicle purchases will reduce the time and resources required for grant recipients and division staff. Implementing an electronic procurement system will save an estimated 25 to 35 percent in staff time for vehicle procurements. This program will greatly improve compliance with specific grant programs.

Purpose Reduce staff time by 25 to 35 percent, improve grant-program compliance

⑥ **511 Traveler Services will provide public transportation information**

Public transportation information and services will be available through the department's 511 Traveler Services system. Users will have a single point of entry for all highway and public transportation mobility information. Through a partnership with the Idaho CareLine, the department can provide live operators without the need to add new staff.

Purpose Provide public transportation information via Idaho's 511 service

Division of Public Transportation

— Future Efficiency Measures —

7 Consolidating technology systems will cut costs and staff time

Mobility partners across the state need various technology initiatives to improve efficiency and synchronization. The department will take the lead to implement consolidated technology initiatives that will support statewide mobility and coordination. These technologies will be provided to a statewide advocacy association acting on behalf of all mobility partners.

This consolidation will cut staff time and costs. A consolidated system that supports partnerships is less expensive than independently developing the technology for each partner.

The department is considering the following initiatives:

- Mobility funding and needs registry
- Ridership and performance metrics system
- Trip planning system
- Automated vehicle-procurement system
- Web-based grant application and management system
- Customer service reporting system
- Demand forecasting system
- Bicycle, pedestrian, and rail asset registry
- Single point of information for statewide mobility (users and stakeholders)

Purpose Cut costs and staff time

Division of Transportation Planning

— Efficiency Measures Completed in FY08 —

① **Voluntary development agreement provides additional revenue**

The department is using voluntary development agreements that will have a direct impact on state highways. Voluntary development agreements provide additional financing for transportation improvement projects needed to reduce the demand for access and traffic-related impacts caused by developments. The fees collected will be used to finance transportation-improvement projects in the area serving the development.

The department, developers, and local land-use regulators will plan and study proposed development and incorporate the needed additions to the state highway system. A pilot project in District 3 is currently underway, focusing on development along Idaho 55. Phase 1 identified an additional \$300 million in improvements that will be needed in the area following completion of all highway projects identified in the *Communities in Motion: Regional Long-Range Transportation Plan 2030*. Future phases will identify the proportionate future funding of transportation improvements for which developers should be responsible, and implement appropriate agreements with the developers. This process will become the template for future projects statewide.

Outcome Improves project implementation and features that mitigate transportation demands caused by new development

② **Transportation program on CDs cuts costs, saving \$21,000 annually**

The statewide transportation improvement program was converted to CD rather than printing it on paper, saving \$19,000 in printing costs and another \$2,000 in mailing costs.

Outcome Saves \$21,000 annually

③ **New online process for posting maps cuts time, saving \$1,000 annually**

Posting maps to the Internet used to be a cumbersome process, but the use of a new scanner is saving time and money. The scanner allows the department to create electronic maps that can be directly posted to the Internet and skip a time-consuming step. The new process saves \$1,000 and an estimated 1,200 staff hours annually.

Outcome Saves \$1,000 annually, cuts 1,200 staff hours annually

Division of Transportation Planning

4 Video conferencing cuts travel costs, saving \$10,000 annually

The department and the state's five metropolitan planning organizations meet regularly to coordinate and share activities and make decisions. But traveling to the meetings was costly and time consuming. Now monthly meetings are held through a statewide video-conferencing system, saving travel expenses for all.

Outcome Saves \$10,000 annually

5 Partnering to collect traffic data cuts costs, saving \$120,000

The department is partnering with the Ada County Highway District to collect traffic data at six locations along I-84 in the Treasure Valley. The joint effort resulted in a one-time \$120,000 savings for the department in equipment purchases and installation costs.

Outcome Saves \$120,000

6 Research project identifies best options to manage pavement condition

Keeping pavement on the 12,000-mile state highway system in the best possible condition is one of the department's highest priorities. Knowing when to work on a section of pavement is critical to extending its life and investing pavement-rehabilitation funds wisely.

That's why the department implemented a project to identify the best method to update its management systems and link pavement needs, maintenance work, and GIS data into one tool that compliments its financial management system. The project, which will be competed in 2008, is evaluating current systems, potential software solutions, and the costs and benefits.

Outcome Identifies best timing for pavement-rehabilitation projects

Division of Transportation Planning

— Future Efficiency Measures —

① Remote traffic-counter debugging will save \$5,000 annually

When a traffic counter on one of the state highways has a problem, department employees now must travel to the site to evaluate and fix the issue. The department is currently researching technologies that will allow many of the issues to be fixed without traveling to the traffic-counter location.

When implemented, the new technology could save an estimated 100 staff hours, 5,000 vehicle miles, and 350 gallons of fuel annually, which will result in an annual savings of \$5,000.

Purpose Save \$5,000 annually

② Statewide transportation plan will prioritize district projects and needs

The department will develop a statewide transportation system plan to better unify the long-range vision, the new strategic plan, the statewide transportation improvement program, and modal plans for public transportation and aeronautics. Integrating these plans will improve communication and awareness of the statewide transportation system over the next 20 years.

The primary focus will be on the department's system, including how it integrates with local, regional, and national systems. The new plan will connect with the long-range capital improvement plan (Horizons) and provide tools to prioritize projects.

Outcome Prioritization of projects and needs

2008 National and State Awards / Recognition

American Institute of Steel Construction Merit Award for construction of Canyon Creek Bridge on Idaho 33.



Canyon Creek Bridge



Idaho Council of Engineering Companies Structural Systems and Grand Conceptor awards for construction of the I-84 Karcher Interchange and the U.S. 95 Setters to Bellgrove reconstruction/realignment.

American Council of Engineering Companies National Grand Conceptor Award for the U.S. 95 Setters to Bellgrove reconstruction/realignment project.

International Concrete Repair Institute Project of the Year for rehabilitation of the Rainbow Bridge on Idaho 55.

National Business Aviation Association Silk Scarf Award to transportation department pilot Mike Pape for his efforts in organizing and supporting the association.



Mike Pape, ITD Pilot



Joan Benzon

Federal Aviation Administration Award for Project Management for the Orofino airport improvement project.

National Highway Traffic Safety Administration National Center for Statistics and Analysis 2007 Fatality and Analysis Reporting System (FARS) "Above and Beyond" Award recognized Joan Benzon as one of five outstanding FARS analysts in the nation. This is Joan's third FARS award since 2003.

Idaho Information Technology Achievement Award for phase one of the DMV computer modernization project.

2008 National and State Awards / Recognition

American Association of Motor Vehicle Administrators Green Awards for:

- *EnviroGuard/ITD recycling partnership.* A portable hazardous-waste collection site is set up monthly at the department's headquarters building for public use.
- *Idaho Operation Wildflower.* The program encourages and supports native and wildflower growth to promote highway beautification and control erosion and weeds.
- *Work at Home and Commuter Incentive programs* recognizing the department for reducing greenhouse emissions and saving fuel.



Operation Wildflower

Center for Digital Government Achievement Award for Idaho's PayPort program that allows citizens to pay for services on line.

American Association of Motor Vehicle Administrators Public Affairs and Consumer Education Excellence Awards for two television public-service announcements encouraging cautious winter driving and motorcycle safety.

Idaho Press Club Awards for:

- *Idaho's Scenic Byway Web Site*
- *511 Web Site*
- *Feature stories*
- *I-84, Broadway to Eisenman brochure*
- *Digital License Plate media campaign*
- *Idaho Safe Routes to School media campaign*



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American Association of State Highway and Transportation Officials Public Affairs Award for the department's Scenic Byway Web Site.

MarCom Platinum Award for the I-84 Orchard Avenue to Gowen Road Public Hearing Guide.



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